

**From:** Penson, Demetrie  
**Sent:** Monday, October 02, 2017 4:20 PM  
**To:** Tim Walter  
**Cc:** Martin Alvarez; Travis Wootton; Adam Krabbenhoft  
**Subject:** RE: 5G Rev 34: Draft Comment Responses, File Reference No. 201721314

Thanks for the email Tim. I forwarded the information in the previous email for Martin's initial review since we were unsuccessful in finding an opportunity to discuss the details of our evaluation of the comments (I believe Martin was away at training for a few days last week). We did take advantage of an opportunity to discuss the contents of the revision with Martin, prior to the 9/5/17 email, but wanted to follow up for additional discussion as stated in my email. Per your suggestion, we can likely set up a conference call to discuss the details of how we resolve the outstanding comments.

Thanks,

**Demetrie Penson P.E.**  
**Permit Coordinator**  
**Environmental Services**

**Luminant**

**From:** Tim Walter [mailto:Tim.Walter@rrc.texas.gov]  
**Sent:** Friday, September 29, 2017 3:42 PM  
**To:** Penson, Demetrie  
**Cc:** Martin Alvarez <Martin.Alvarez@rrc.texas.gov>; Travis Wootton <Travis.Wootton@rrc.texas.gov>; Adam Krabbenhoft <Adam.Krabbenhoft@rrc.texas.gov>  
**Subject:** RE: 5G Rev 34: Draft Comment Responses, File Reference No. 201721314

**EXTERNAL EMAIL**

Hi Demetrie,

Thank you for your draft errata. I am responding for Martin, as I want to be sure you are aware of the status of this application. For this revision, we were unable to obtain an expedient response to our draft comments sent by email on September 5, 2017; therefore, because this revision has some complex issues that merit detailed investigation and discussion, I have logged our September 5<sup>th</sup> draft comments as a response request from Staff and placed it in your court as of that date.

As a note, we had expected to meet or hold a phone conference to discuss the noted issues rather than be waiting for a written response. To that end, I request that you contact us to schedule a meeting to discuss your potential responses to be provided in a supplement. I will advise you that our initial review of the errata would indicate that it does not appear to address all of the issues that were noted and that many concerns remain that need further discussion.

Please feel free to contact me if you have questions or would like to set up a meeting or telephone call.

Regards, Tim

**Timothy G. Walter, P.G.**

Advising Hydrogeologist

Manager, Applications and Permits

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**From:** Penson, Demetrie

**Sent:** Friday, September 29, 2017 12:23 PM

**To:** Martin Alvarez <[Martin.Alvarez@rrc.texas.gov](mailto:Martin.Alvarez@rrc.texas.gov)>

**Cc:** Mills, Scott >; Fernandez, Celi

>; Adam Krabbenhoft

<[Adam.Krabbenhoft@rrc.texas.gov](mailto:Adam.Krabbenhoft@rrc.texas.gov)>

**Subject:** 5G Rev 34: Draft Comment Responses

Martin,

I have attached our responses to the 5G Rev 34 draft comments to this email. If possible, we'd like to further discuss comments 11 and 12 to make sure we clearly understand what may be required to address the concern. Please let us know if you have any other questions.

Thanks,

**Demetrie Penson P.E.**

**Permit Coordinator**

**Environmental Services**

**Luminant**

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1. Luminant indicates in Appendix E that mobile equipment will move approximately 750,000 cubic yards of subgrade material from Zone 1; however, it is not clear where the material will be placed.

Luminant Response:

Luminant indicates on page 139-E-1 and Table 139 E-1 that the 750,000 cubic yards of subgrade material will remain in Zone 1.

2. Additionally, explanation is needed to clarify why the activities associated with the proposed H-Area Reclamation Plan are to begin on June 1, 2018, almost a year from now.

Luminant Response:

The proposed start date for the pending reclamation plan has been selected in consideration of the time required to complete SMRD review/approval of this application as well as further follow-up with the City of Sulphur Springs regarding the approved plan, the execution of the project bidding process and the mobilization of the contractor to execute the reclamation schedule. Activities will begin earlier if possible under these circumstances.

3. Luminant indicates on Table 139 E-2 that there are 379,300 yd<sup>3</sup> of "Recoverable Suitable Material" on suitable material H-Area Stockpile No. 1, and text on Page 139-E-1 indicates that suitable material H-Area Stockpile No. 1 has a maximum storage capacity of 318,000 yd<sup>3</sup>. Additionally, Page 139(b)-4 of the approved permit indicates "...it is estimated that approximately 318,000 loose cubic yards of suitable material will be placed in the suitable material stockpile." Please explain.

Luminant Response:

The intent of Table 139 E-2 is to demonstrate adequate suitable material is in place to support the reclamation of the area in question. The noted recoverable suitable material for Stockpile No. 1 represents the contents of the stockpile (316,200 cy) as well as the existing 4.3 feet of suitable material below the stockpile (66,031 cy).

4. Luminant indicates on Table 139 E-2 that there are 178,204 yd<sup>3</sup> of "Recoverable Suitable Material" on suitable material H-Area Stockpile No. 2; however, text on Page 139-E-1 indicates that suitable material H-Area Stockpile No. 2 has a maximum storage capacity of 430,000 yd<sup>3</sup>. Please explain.

Luminant Response:

The intent of Table 139 E-2 is to demonstrate adequate suitable material is in place to support the reclamation of the area in question. The noted recoverable suitable material for Stockpile No. 2 represents the contents of the stockpile (79,000 cy) as well as the existing 4.3 feet of suitable material below the stockpile (99,204 cy). The maximum capacity of the stockpile has not been achieved.

5. Please provide information to clarify how Luminant calculated the amount of recoverable suitable material on each zone and stockpile as stated on Table 139 E-2, to include depth of removal.

Luminant Response:

The amount of recoverable suitable material is based on a material balance plan conducted by our Thermo Mine Engineering personnel. The plan is based on removing an adequate volume of material to support reclamation of the final pit while leaving the required depth of suitable material in place at



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the source locations. Depth is a variable component of this plan as it will increase or decrease as Luminant reclaims according to the pending postmine contours. The volume of material in Stockpile Nos. 1 and 2 was calculated with a volumetric assessment of survey data.

6. Review of *Table 139 E-2* indicates that adding the “*Required Suitable Material*” to the suitable material to be moved (Zone 2 and Zone 3) equals the “*Recoverable Suitable Material*.” Staff believes this should be the case for Stockpile 1 and Stockpile 2. Additionally, please check the totals cell on *Table 139 E-2*.

Luminant Response:

Luminant has revised *Table 139 E-2* to reflect the correct total for “*Required Suitable Material*”. A copy of the revised table has been included in this supplemental document.

7. Luminant does not indicate why it proposes to leave an approximately 100-foot high temporary unsuitable stockpile (northwest of proposed H-03 Permanent Impoundment) as a permanent structure on Zone 1.

Luminant Response:

The proposed postmine contours are based on the reclamation strategy requested by the end user of the property (City of Sulphur Springs). This information was presented in a meeting between Luminant, members of the SMRD Director, Assistant Director, Technical Staff, and leadership from the City of Sulfur Springs on May 16, 2017. Revision Application No. 34 is consistent with the information presented during that meeting.

8. Luminant indicates that 750,000 yd<sup>3</sup> of unsuitable material in Unsuitable Material Stockpile No. 1 will be used in reclamation of the H-Area, but does not characterize the material underlying this stockpile or describe its plan to avoid over excavation of the stockpile area since it is located on land that was not otherwise disturbed by mining activities.

Luminant Response:

Luminant indicates on page 139-E-1 that Stockpile No. 1 contains suitable material.

*Plan to avoid over excavation?* Removal of stockpile material will be closely monitored by Luminant personnel to ensure that native premine soils are not negatively impacted to create an unsuitable postmine soil. Premine topographical data will aid in this effort. Execution of the approved postmine soil monitoring plan will demonstrate soil suitability.

9. Luminant classifies the material that will remain in Zone 2 and Zone 3 as “*Suitable Material*” in an affected area that was not mined during progression of the active pit. Luminant provided no details regarding the potential ripping and disking of Zone 2 and Zone 3 following suitable material removal. Staff needs further details regarding the proposed ripping and disking of Zones 2 and 3 following suitable material removal and information concerning whether and to what extent soil amendments will be incorporated.

Luminant Response:

Luminant has revised page 139-E-2 to include information regarding ripping and disking. A copy of this information is included in this supplemental document.

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10. Luminant did not provide physicochemical data for materials considered for placement in the postmine top four feet. Additionally, no geologic cross sections were provided for Zones 2 and 3. Staff considers that a cross section extending through all locations, to include the stockpiles, are appropriate.

**Luminant Response:**

The physicochemical data for the materials proposed in the application for placement in the postmine top four feet is in the currently approved 5G Permit. The existing Stockpile No. 1 is an approved suitable material storage area and its contents, as well as the material proposed for recovery from Zones 2 and 3, are comprised of material from the approved suitable layers in the H-Area.

11. The proposed H-Area Reclamation Plan does not meet Section §12.384(b):

- Section §12.384(b)(1) ...disturbed areas shall be returned to AOC, ... graded to eliminate ...spoil piles, ...
- Section §12.384(b)(2) ... to support approved postmining land use.
- Additionally, Section §12.145(b)(3) ... with contour maps or cross sections that show the anticipated final surface configuration... in accordance with §§12.384-12.389...
- Significant changes to Table 139(b)-1 (*Slope Comparison Table*) compared to approved table.

**Luminant Response:**

Please clarify if this is a statement or a question.

12. Luminant is proposing to cover the approximately 100-foot high temporary stockpile, which contains acid/toxic forming materials, with four (4) feet of suitable material. Staff considers:

- Section §12.386(2) ... these materials shall be treated to neutralize toxicity, in order to prevent water pollution and sustained combustion and minimize adverse effects on plant growth and land uses.
- Section §12.386(3) ... a thicker amount of cover using nontoxic material or special compaction and isolation from ground-water contact may be necessary to protect against upward migration of salts, exposure by erosion, formation of acid or toxic seep.
- Section §12.386(4) Acid-forming or toxic-forming material shall not be buried or stored in proximity to a drainage course so as to cause or pose a threat of water pollution.

**Luminant Response:**

Please clarify if this is a statement or a question.

13. Review of available aerial photographs, indicates the presence of rills and gullies on the approximately 100-foot high stockpile. Plates 139-2-1, 139-3-1, and 147-1 depict the existing stockpiles and do not provide a clear depiction of the proposed postmine contours. Staff is concern about rills and gullies



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which either disrupt the postmine land use or the reestablishment of the vegetative cover or cause or contribute to a violation of water-quality standards for receiving streams (expose soil layers could cause acid seepage). Consider the requirements of Section §12.389 in this proposed reclamation plan. "... contour maps or cross sections that show the anticipated final surface configuration... in accordance with §§12.384-12.389..." are necessary.

**Luminant Response:**

Execution of the reclamation plan will involve backfill and grading as well as placement of four feet of suitable material on the area of concern. Current rills and gullies associated with the stockpile will be eliminated in the regrading process, as has been discussed with Staff in previous meetings. Postmine revegetation and land management practices will serve to minimize erosion after final topography is achieved.

14. The proposed postmine landuse (PMLU) does not meet Section §12.399:

- Section §12.399 (a)(1) ... capable of supporting the uses which they were capable of supporting before any mining, or
- Section §12.399 (a)(2) ... higher or better uses achievable under criteria...

**Luminant Response:**

The land use changes proposed in this application are consistent with the land uses shown in the approved permit with the exception of a location change of the final pit pond, additional developed water resources in the northern H-Area and the conversion to Industrial/Commercial land use for the Office Shop area.

15. Revised operation plan sheets (Plates with a "139-1-" prefix) are required to reflect changes to the operations plan in the H-Area resulting from the proposed H-Area Reclamation Plan.

**Luminant Response:**

The proposed reclamation plan does not impact to the operation plan maps (plates with a "139-1-" Prefix). Any plates that were affected by this reclamation plan were provided with the reclamation plan.

16. Revised Table 139(a)-2 (*Temporary Cessation of Operations, Backfilling and Grading Variances and Stream Buffer Zone*), Table 139(a)-3 (*Progressive Characteristics for Backfilling and Grading (B&G) Time Frame and Distance Variances*) that includes a reference to Appendix 139-E for the proposed H-Area Reclamation Plan, and Table 139(b)-1 (*Primary Sedimentation Control Structures and Impoundment Schedule*) that includes revised pond information, are required.

**Luminant Response:**

Table 139(a)-2 (*Temporary Cessation of Operations, Backfilling and Grading Variances and Stream Buffer Zone*) and 139(a)-3 (*Progressive Characteristics for Backfilling and Grading (B&G) Time Frame*

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*and Distance Variances*) were not included as the H-Area Reclamation Plan does not impact the information listed.

Luminant has updated Table 139(b)-1. A copy of the revised table is included in this supplemental document.

17. Luminant provides general design information for proposed H-03 Permanent Impoundment on Table 139(b)-3 (Permanent Impoundment Schedule). Additionally, the legend on Luminant's Postmine Land Use Map (Plate 147-1) calls out the H-01 Treatment Pond and H-01 Sedimentation Pond as proposed developed water resource structures. SMRD records indicate these two structures (H-01 Treatment Pond and H-01 Sedimentation Pond) are approved temporary structures. Please explain and/or provide detailed design calculations as necessary.

**Luminant Response:**

Luminant included H-01 Pond and H-01 Treatment pond on plate 147-1 and Table 139(b)-3 as they are now proposed to be submitted as permanent in 2020.

18. According to revised Table 139(b)-3, detailed design plans for permanent impoundments H-01 Treatment Pond and H-01 Pond will be submitted in 2020, and detailed design plans for permanent impoundment H-03 will be submitted in 2019. Luminant indicates that activities associated with the H-Area Reclamation Plan will be complete by March 1, 2019. No information is provided in the revised portions of section .139 to describe the impacts of the proposed reclamation strategy on timing of submittal of detailed design plans for permanent impoundments H-01 Treatment Pond and H-01 Pond. As part of this proposed H-Area Reclamation Plan, the date of submittal of design plans should be provided so it can be determined how this coincides with the rest of the reclamation schedule.

**Luminant Response:**

The proposed H-Area Reclamation Plan addresses the reclamation of the H-Area Final Pit. This format is consistent with the standard format of Luminant reclamation plans. As noted in the comment above, the submittal of the schedule of the H-01 Pond is noted in Table 139(b)-3.

19. Luminant did not provide a plan and schedule for revegetation as required in §12.390 through §12.393, and §12.395.

**Luminant Response:**

The schedule for revegetation is listed in section .145 of the currently approved permit. Luminant will follow the revegetation schedule and plan according to the approved permit.

20. Given that mining has ceased, please correct the statement on the last paragraph of Page 139-E-2 under the *H-03 Pond* description.

**Luminant Response:**

Luminant has revised page 139-E-2. A copy of this information is included in this supplemental document.

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21. Please correct the last paragraph of Page 139-E-2 under the *Zone 3 Suitable Material Leveling* description to refer to Zone 3 instead of Zone 2.

**Luminant Response:**

Luminant has revised page 139-E-2. A copy of this information is included in this supplemental document.

DRAFT